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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/129,448	08/04/1998	RONALD L. MAHANY	14235US01	4521
7590	12/29/2004		EXAMINER	
Christopher C Winslade McAndrews Held & Malloy Suite 3400 500 W Madison Street Chicago, IL 60661			NGUYEN, TOAN D	
			ART UNIT	PAPER NUMBER
			2665	
DATE MAILED: 12/29/2004				

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)
	09/129,448	RONALD L. MAHANY
Examiner	Art Unit	
Toan D Nguyen	2665	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) Responsive to communication(s) filed on 06 August 2004.

2a) This action is **FINAL**. 2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) Claim(s) 52-58, 60, 61, 66-72, 74 and 75 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) Claim(s) 52-55, 60, 61, 66-69, 74 and 75 is/are allowed.

6) Claim(s) 56-58, 70-72 is/are rejected.

7) Claim(s) _____ is/are objected to.

8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on 04 August 1998 is/are: a) accepted or b) objected to by the Examiner.

 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) All b) Some * c) None of:
1. Certified copies of the priority documents have been received.
2. Certified copies of the priority documents have been received in Application No. _____.
3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a))

* See the attached detailed Office action for a list of the certified copies not received

Attachment(s)

1) Notice of References Cited (PTO-892)
2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date

4) Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____ .

5) Notice of Informal Patent Application (PTO-152)

6) Other: _____

DETAILED ACTION

1. The applicant is advised to cancel claims 76-84 in the next correspondence.
2. The indicated allowability of claims 56-58 and 70-72 are withdrawn in view of the newly discovered reference(s) to McNinch et al (US 5,568,490), Ayanoglu et al (US 5,570,367) and Kamm et al (US 5,457,680). Rejections based on the newly cited reference(s) follow.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

4. Claims 56 is rejected under 35 U.S.C. 103(a) as being unpatentable over Buhl et al. (US 5,153,902) in view of McNinch et al. (US 5,568,490).

For claim 56, Buhl et al. disclose multi-exchange paging system for locating a mobile telephone in a wide area telephone network, comprising:

a plurality of access devices (figure 1, references E1-E4) supporting wireless communications among the plurality of computing devices (figure 1, references M1-M4) (col. 4 lines 41-44);

at least one of said plurality of access devices (figure 1, references E1-E4) delivers data to the roaming terminal device (figure 1, reference M1) (col. 5 lines 38-40); and

the at least one of the plurality of access devices (references E1-E4) selectively stores the delivered data (figure 2, col. 7 lines 10-15) for subsequent delivery of the delivered data to the roaming terminal device (figure 3, col. 7 lines 58-61 and col. 8 lines 10-18).

However, Buhl et al. do not disclose wherein the at least one of said plurality of access devices considers the frequency that data is requested before selecting which data to store. In an analogous art, McNinch et al. disclose wherein the at least one of said plurality of access devices considers the frequency that data is requested before selecting which data to store (col. 3 lines 2-3).

One skilled in the art would have recognized wherein the at least one of said plurality of access devices considers the frequency that data is requested before selecting which data to store to use the teachings of McNinch et al. in the system of Buhl et al. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention, to use the wherein the at least one of said plurality of access

devices considers the frequency that data is requested before selecting which data to store as taught by McNinch et al. in Buhl et al.'s system with the motivation being to provide a cell site base station assign a slot for the voice data on one of the RF frequencies assigned to the network (col. 3 lines 2-3).

5. Claim 57 is rejected under 35 U.S.C. 103(a) as being unpatentable over Buhl et al. (US 5,153,902) in view of Ayanoglu et al. (US 5,570,367).

For claim 57, Buhl et al. disclose multi-exchange paging system for locating a mobile telephone in a wide area telephone network, comprising:

a plurality of access devices (figure 1, references E1-E4) supporting wireless communications among the plurality of computing devices (figure 1, references M1-M4) (col. 4 lines 41-44);

at least one of said plurality of access devices (figure 1, references E1-E4) delivers data to the roaming terminal device (figure 1, reference M1) (col. 5 lines 38-40); and

the at least one of the plurality of access devices (references E1-E4) selectively stores the delivered data (figure 2, col. 7 lines 10-15) for subsequent delivery of the delivered data to the roaming terminal device (figure 3, col. 7 lines 58-61 and col. 8 lines 10-18).

However, Buhl et al. do not disclose wherein the at least one of said plurality of access devices considers its available storage capacity before selecting which data to store. In an analogous art, Ayanoglu et al. disclose wherein the at least one of said

plurality of access devices considers its available storage capacity before selecting which data to store (col. 4 lines 52-61).

One skilled in the art would have recognized wherein the at least one of said plurality of access devices considers its available storage capacity before selecting which data to store to use the teachings of Ayanoglu et al. in the system of Buhl et al. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention, to use the wherein the at least one of said plurality of access devices considers its available storage capacity before selecting which data to store as taught by Ayanoglu et al. in Buhl et al.'s system with the motivation being to provide a processor that copies and stores in its buffer all packet transmitted by base station 121 (col. 4 lines 54-56).

6. Claim 58 is rejected under 35 U.S.C. 103(a) as being unpatentable over Buhl et al. (US 5,153,902) in view of Kamm et al. (US 5,457,680).

For claim 58, Buhl et al. disclose multi-exchange paging system for locating a mobile telephone in a wide area telephone network, comprising:

a plurality of access devices (figure 1, references E1-E4) supporting wireless communications among the plurality of computing devices (figure 1, references M1-M4) (col. 4 lines 41-44);

at least one of said plurality of access devices (figure 1, references E1-E4) delivers data to the roaming terminal device (figure 1, reference M1) (col. 5 lines 38-40); and

the at least one of the plurality of access devices (references E1-E4) selectively stores the delivered data (figure 2, col. 7 lines 10-15) for subsequent delivery of the delivered data to the roaming terminal device (figure 3, col. 7 lines 58-61 and col. 8 lines 10-18).

However, Buhl et al. do not disclose wherein the at least one of said plurality of access devices considers the size of the data before selecting which data to store. In an analogous art, Kamm et al. disclose wherein the at least one of said plurality of access devices considers the size of the data before selecting which data to store (col. 9 lines 63 to col. 10 line 2).

One skilled in the art would have recognized wherein the at least one of said plurality of access devices considers the size of the data before selecting which data to store to use the teachings of Kamm et al. in the system of Buhl et al. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention, to use the wherein the at least one of said plurality of access devices considers the size of the data before selecting which data to store as taught by Kamm et al. in Buhl et al.'s system with the motivation being to measure the average packet size in the forward channel and compares it to the number of slots allocated to the terminal (col. 9 lines 63-65).

7. Claim 70 is rejected under 35 U.S.C. 103(a) as being unpatentable over Buhl et al. (US 5,153,902) in view of Kunz (US 5,353,340) further in view of McNinch et al. (US 5,568,490).

For claim 70, Buhl et al. disclose multi-exchange paging system for locating a mobile telephone in a wide area telephone network, comprising:

supporting wireless communications among a plurality of computing devices (figure 1, references M1-M4) via a plurality of access devices (figure 1, references E1-E4), at least one of the plurality of computing devices (references E1-E4) comprising a roaming terminal device (figure 1, reference M1) (col. 4 lines 40-44 and col. 5 lines 19-20);

delivering data to the roaming terminal device via at least one of the plurality of access devices (col. 5 lines 38-40); and

selectively retaining the delivered data (figure 2, col. 6 lines 19-27 and col. 7 lines 1015) for subsequent delivery of the delivered data to the roaming terminal device via the at least one of the plurality of access devices (references E1-E4) (figure 3, col. 7 lines 58-61 and col. 8 lines 10-18).

Buhl et al. do not disclose each of the plurality of computing devices (references M1-M4) comprising a wireless transceiver. In an analogous art, Kunz discloses a computing device comprising a wireless transceiver (Abstract line 2).

One skilled in the art would have recognized a wireless transceiver to use the teachings of Kunz in the system of Buhl et al. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention, to use the wireless transceiver as taught by Kunz in Buhl et al.'s system with the motivation being to establish the communications with a mobile services switching center (Abstract lines 8-10).

However, Buhl et al. do not disclose considering a frequency that data is requested via the at least one of said plurality of access devices before selecting which data to retain. In an analogous art, McNinch et al. disclose considering a frequency that data is requested via the at least one of said plurality of access devices before selecting which data to retain (col. 3 lines 2-3).

One skilled in the art would have recognized considering a frequency that data is requested via the at least one of said plurality of access devices before selecting which data to retain to use the teachings of McNinch et al. in the system of Buhl et al. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention, to use the considering a frequency that data is requested via the at least one of said plurality of access devices before selecting which data to retain as taught by McNinch et al. in Buhl et al.'s system with the motivation being to provide a cell site base station assign a slot for the voice data on one of the RF frequencies assigned to the network (col. 3 lines 2-3).

8. Claim 71 is rejected under 35 U.S.C. 103(a) as being unpatentable over Buhl et al. (US 5,153,902) in view of Kunz (US 5,353,340) further in view of Ayanoglu et al. (US 5,570,367).

For claim 71, Buhl et al. disclose multi-exchange paging system for locating a mobile telephone in a wide area telephone network, comprising:
supporting wireless communications among a plurality of computing devices (figure 1, references M1-M4) via a plurality of access devices (figure 1, references E1-E4), at least one of the plurality of computing devices (references E1-E4) comprising a

roaming terminal device (figure 1, reference M1) (col. 4 lines 40-44 and col. 5 lines 19-20);

delivering data to the roaming terminal device via at least one of the plurality of access devices (col. 5 lines 38-40); and

selectively retaining the delivered data (figure 2, col. 6 lines 19-27 and col. 7 lines 1015) for subsequent delivery of the delivered data to the roaming terminal device via the at least one of the plurality of access devices (references E1-E4) (figure 3, col. 7 lines 58-61 and col. 8 lines 10-18).

Buhl et al. do not disclose each of the plurality of computing devices (references M1-M4) comprising a wireless transceiver. In an analogous art, Kunz discloses a computing device comprising a wireless transceiver (Abstract line 2).

One skilled in the art would have recognized a wireless transceiver to use the teachings of Kunz in the system of Buhl et al. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention, to use the wireless transceiver as taught by Kunz in Buhl et al.'s system with the motivation being to establish the communications with a mobile services switching center (Abstract lines 8-10).

However, Buhl et al. in view of Kunz do not disclose considering available storage capacity of the at least one of the plurality of access devices before selecting which data to retain. In an analogous art, Ayanoglu et al. disclose considering available storage capacity of the at least one of the plurality of access devices before selecting which data to retain (col. 4 lines 52-61).

One skilled in the art would have recognized considering available storage capacity of the at least one of the plurality of access devices before selecting which data to retain to use the teachings of Ayanoglu et al. in the system of Buhl et al. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention, to use the considering available storage capacity of the at least one of the plurality of access devices before selecting which data to retain as taught by Ayanoglu et al. in Buhl et al.'s system with the motivation being to provide a processor that copies and stores in its buffer all packet transmitted by base station 121 (col. 4 lines 54-56).

9. Claim 72 is rejected under 35 U.S.C. 103(a) as being unpatentable over Buhl et al. (US 5,153,902) in view of Kunz (US 5,353,340) further in view of Kamm et al. (US 5,457,680).

For claim 72, Buhl et al. disclose multi-exchange paging system for locating a mobile telephone in a wide area telephone network, comprising:

supporting wireless communications among a plurality of computing devices (figure 1, references M1-M4) via a plurality of access devices (figure 1, references E1-E4), at least one of the plurality of computing devices (references E1-E4) comprising a roaming terminal device (figure 1, reference M1) (col. 4 lines 40-44 and col. 5 lines 19-20);

delivering data to the roaming terminal device via at least one of the plurality of access devices (col. 5 lines 38-40); and

selectively retaining the delivered data (figure 2, col. 6 lines 19-27 and col. 7 lines 1015) for subsequent delivery of the delivered data to the roaming terminal device via

the at least one of the plurality of access devices (references E1-E4) (figure 3, col. 7 lines 58-61 and col. 8 lines 10-18).

Buhl et al. do not disclose each of the plurality of computing devices (references M1-M4) comprising a wireless transceiver. In an analogous art, Kunz discloses a computing device comprising a wireless transceiver (Abstract line 2).

One skilled in the art would have recognized a wireless transceiver to use the teachings of Kunz in the system of Buhl et al. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention, to use the wireless transceiver as taught by Kunz in Buhl et al.'s system with the motivation being to establish the communications with a mobile services switching center (Abstract lines 8-10).

However, Buhl et al. in view of Kunz do not disclose considering data size via the at least one of the plurality of access devices before selecting which data to retain. In an analogous art, Kamm et al. disclose considering data size via the at least one of the plurality of access devices before selecting which data to retain (col. 9 lines 63 to col. 10 line 2).

One skilled in the art would have recognized considering data size via the at least one of the plurality of access devices before selecting which data to retain to use the teachings of Kamm et al. in the system of Buhl et al. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention, to use the considering data size via the at least one of the plurality of access devices before selecting which data to retain as taught by Kamm et al. in Buhl et al.'s system with the

motivation being to measure the average packet size in the forward channel and compares it to the number of slots allocated to the terminal (col. 9 lines 63-65).

Allowable Subject Matter

10. Claims 52-55, 60-61, 66-69 and 74-75 are allowed.

The following is an examiner's statement of reasons for allowance:

Regarding claim 52, the prior art fails to teach a combination of the steps of: wherein at least one of said plurality of access devices selectively migrates processing resources to support future processing requests, in the specific combination as recited in the claim.

Regarding claim 54, the prior art fails to teach a combination of the steps of: wherein at least one of said plurality of access devices selectively migrates program code, in the specific combination as recited in the claim.

Regarding claim 55, the prior art fails to teach a combination of the steps of: wherein at least one of said plurality of access devices considers the cost of re-obtaining data before selecting which data to store, in the specific combination as recited in the claim.

Regarding claim 60, the prior art fails to teach a combination of the steps of: wherein at least one of said plurality of access devices considers the cost of re-obtaining data before selecting which data to store, in the specific combination as recited in the claim.

Regarding claim 61, the prior art fails to teach a combination of the steps of:

wherein at least one of said plurality of access devices considers the frequency that the stored data is requested before selecting what stored data to delete, in the specific combination as recited in the claim.

Regarding claim 66, the prior art fails to teach a combination of the steps of: selectively migrates processing resources via at least one of the plurality of access devices to support future processing requests, in the specific combination as recited in the claim.

Regarding claim 68, the prior art fails to teach a combination of the steps of: selectively migrates program code via at least one of the plurality of access devices, in the specific combination as recited in the claim.

Regarding claim 69, the prior art fails to teach a combination of the steps of: considering a cost of re-obtaining data via the at least one of said plurality of access devices before selecting which data to retain, in the specific combination as recited in the claim.

Regarding claim 74, the prior art fails to teach a combination of the steps of: considering a cost to re-obtain the retain data via the at least one of said plurality of access devices before selecting which data to delete, in the specific combination as recited in the claim.

Regarding claim 75, the prior art fails to teach a combination of the steps of: considering a frequency that the retained data is requested via the at least one of said plurality of access devices before selecting which retained data to delete, in the specific combination as recited in the claim.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Response to Arguments

11. Applicant's arguments with respect to claims 52-58, 60, 61, 66-72, 74 and 75 have been considered but are moot in view of the new ground(s) of rejection.
12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Toan D Nguyen whose telephone number is 571-272-3153. The examiner can normally be reached on M-F (7:00AM-4:30PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Huy Vu can be reached on 571-272-3155. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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